



# United States Department of the Interior

## NATIONAL PARK SERVICE

Klondike Gold Rush National Historical Park  
P.O. Box 517  
Skagway, Alaska 99840

# Backcountry Travel and Communications Procedures

Approved: \_\_\_\_\_  
Superintendent's Signature

\_\_\_\_\_  
Date

## **Goals**

- Provide for employee safety during backcountry operations
- Provide visitor services and resource protection in a safe manner
- Provide employees with the skills and guidance to travel safely in the backcountry
- Provide backcountry safety standards and expectations for all employees and volunteers regardless of division, discipline, grade, or job title

## **Objective**

The overarching aim of this document is to create a safe working environment by properly training and equipping NPS employees for backcountry operations. The goal is not to impose rules that hinder backcountry operations, but rather to focus on job safety via smart choices and planning. This document establishes benchmarks for safety and training in order to better protect the employees of Klondike Gold Rush National Historical Park.

## **Situational Awareness**

Situational Awareness is our ability to process what is going on around us. As park rangers, resource technicians, and trail crew members, we are held to a higher standard of backcountry ethics than the general public. The park is committed to providing the following measures of safety for all backcountry travel:

- Safe travel and work in the backcountry.
- Proper tools for the tasks at hand.
- Identification and mitigation of hazards encountered as part of our required work.
- Public education about how to safely travel and live in the backcountry.

## **Risk Management**

Risk is inherent in any backcountry operation. In many cases the lure of backcountry jobs and activities is the pursuit of some draw to risk and challenge that the wild areas of a park can present. Our goal is to manage the risks we encounter while working in the backcountry in a manner that provides for as reasonably safe an experience for the employee and visitor as possible. NPS employees need to possess the training and experience to identify and mitigate hazards. Working and traveling with others, while not always practical, is strongly advised. Every day that NPS employees travel and work in the backcountry, they need to be thinking about how to:

1. Identify Hazards (e.g. unstable rocky ledges, swift and deep water crossings, snow/ice bridges)
2. Assess Hazards (e.g. How stable is this snow bridge? How deep is it and what is the water flow beneath like?)
3. Make appropriate decisions (e.g. Is this the best location at which to cross?)
4. Re-Evaluate Safety of Decision (e.g. Is the snow bridge continuing to remain stable?)

Employees should keep in mind that the public perception of “Rangers” is that of safety and professionalism. When in doubt the public will do as the ranger does. While employees may be well-trained and experienced in the activity or mode of travel at hand, always be cognizant not to lead the public into a situation that can quickly become hazardous for a lesser experienced individual.

## **Accident and Injury Reporting**

NPS employees must immediately report all near misses, accidents, and work place injuries to their supervisor within 24 hours upon return from the backcountry. Employees and supervisors will also use the Safety Management Information System (SMIS) to review, document, and identify corrective actions to ensure the backcountry operation of Klondike Gold Rush NHP functions in a safer fashion in the future. All near misses will be reported on the In-park SafeCom form located on the network at *s: safety/inpark safecom.xls*. When possible, an post incident debriefing should occur.

## **Trip Planning**

All duty travel into the backcountry must be initiated with a park travel authorization through your supervisor and administration prior to departure. See the Employee Handbook for detailed instructions on completing the form. Because most backcountry travel will be conducted within the narrow Chilkoot trail corridor, a separate written itinerary will not be required for Chilkoot trips. However, all employees traveling overnight on the Chilkoot Trail must mark on the Trail Schedule (located in the Trail Center office) the dates and respective camping/cabin locations intended for use. Possible conflicts (overcrowding in the cabins) should be addressed well in advance by contacting the conflicting parties or their supervisors. Duty use of cabins takes precedence over recreational use of cabins. In order to utilize the cabins for non-duty recreational purposes one must obtain prior permission from the duty cabin occupant(s) and record the use on the schedule. Final determination rests with the duty cabin occupant, even if not present for the scheduled use period. (eg: trail ranger for Sheep Camp Ranger Station and trail crew supervisor for the Trail Crew cabin. Prior to the first overnight hike on the Chilkoot Trail, employees must attend the Trail Center orientation briefing about policies and safety in the backcountry.

All overnight off-season (Trail Center closed), off-trail or White Pass Unit backcountry travel will require the filing of a written or electronic itinerary with either the employee(s)'s supervisor or the Chief Ranger. The Chief Ranger (or designee) will forward itineraries to the Skagway Police Dispatch (SPD). A written itinerary will consist of trip dates, entry and exit trailheads, route taken, campsite(s) used, method of communication with identifier (radio or satellite phone/call sign or phone number) and emergency contact name and number. One itinerary may be submitted for groups traveling together. Include names of all participants in the backcountry trip, including employees, volunteers, agency partners, etc.

Day trips into the backcountry off-trail or out of season must at a minimum be reported to the supervisor. A reliable form of communication (see next section) must be on the employee's person or a minimum of 2 communication devices (ie: radios) must be with a group at all times. The supervisor will be responsible for closing out the employee's trip plan at the end of day. If contact with the employee(s) is not made by the preset time, refer to "Failure to Check-In" section later in this document.

## **Authorized Methods for Backcountry Communications**

### **Radios**

Klondike Gold Rush National Historical Park has a multiple repeater based VHF radio system. The radio system can be used to communicate with others on the trail as well as the Trail Center and is monitored by the Skagway Police Department Dispatch. When working and traveling in the backcountry employees and work crews should always have a radio and minimum of one spare battery. Battery chargers are available in the field at Dyea Ranger Station, Canyon City trail crew cabin and Sheep Camp ranger station. When hiking on the Chilkoot Trail, the Chilkoot Repeater (Channel 2) is the preferred channel. The AB Mountain Repeater (channel 3) is located near Dyea Road between Skagway and Dyea. Channel 3 should be the primary frequency when working at the lower end of the trail and in Skagway and Dyea. When working as teams in localized areas of the backcountry, channel 1 should be the primary frequency of use. When using channel 1 as the primary frequency, radios should be set to "scan", so as to receive important park wide hailings or messages. Otherwise, the scan function should be used sparingly to conserve battery power. See the attached radio transmission [propagation map](#) for a visual depiction of approximate radio coverage in the park.

When a repeater connection can be made using a park radio, the radio phone patch can be accessed by keying the mic and dialing "\* 9" and waiting for a dial tone; then keying the mic and dialing the phone number of the person or place you are trying to call. This phone patch connection only last for up 90 seconds at a time, after which time the connection process must be repeated. Conversely, anyone with a phone can call into the radio phone patch system by dialing 983-2825. Conversation then continues as if the phone were a radio.

Employees should carry one functional battery on the radio and one additional spare for each radio in the party per 24 hour period that the radio goes without charging.

#### *Radio Repeater Dead Spots*

Several radio "dead spots" exist throughout the Park. The area near Canyon City is a known intermittent "dead spot" for being able to use the radio repeater system (ie: channels 2 or 3). Other "dead spots" may exist and fluctuate depending upon battery strength, condition of radio, and user movements. Generally, the more stationary the user is, the better the repeater connection. Whenever you are unable to connect via repeater, stop moving. If still unable to make a connection with the repeater, try moving to higher ground. The warmer the batteries can be maintained overnight, the more power and connection success the radio transmission will have.

The areas of the Chilkoot Trail between Lindeman City and Bennett should be considered unreliable for radio traffic. NPS employees need to conduct field tests to locate and familiarize themselves with these locations.

The White Pass Unit has very limited radio coverage as of 2006'. Some local communication between Skagway and the railroad tracks south of Heney Station has been confirmed on channel 1. AB Mountain (Channel 3) repeater has not yet been tested inside the unit, but does function as far north as Moore Creek bridge. Satellite phone coverage has not yet been tested in this unit of the park. Cell phone coverage is not available in the White Pass Unit. The park plans to install a new repeater at the Goat Lake facility to enhance radio coverage into the key areas of the unit. Current range models show moderate, though limited, potential for radio coverage across much of the unit with the addition of a Goat Lake repeater. In the meantime, NPS has received authorization to program the city's Goat Lake police and fire frequencies into the LE digital radios

for patrol and emergency services use. When traveling in the White Pass unit use channel 3 (AB mountain repeater) for communication with Skagway. If repeater connection cannot be made, use channel 1 (local). NPS is working with the City of Skagway to share use of the City's existing Goat Lake repeater emergency services frequency.

### Satellite Phones

Satellite phones are maintained for emergency communications at the Sheep Camp Ranger Station and in Skagway Headquarters. In addition, the resources division has two satellite phones for field use. When hiking off trail or outside of the primary operating season, field staff should take a satellite phone on their person. Satellite connection is intermittent and varies in connection time depending upon the time of day, location, and amount of tree canopy cover. Generally, connection speed may take several minutes and may last from seconds to more than five minutes. When using the satellite phone, look for an opening in the canopy and get the most urgent information across first. Use short and concise statements. Repeat the connection process as necessary. Satellite phones are useful for transmitting secure information, rather than broadcasting over the park radio system.

In an effort to conserve battery power on the satellite phones, they will be kept turned off when not in the charger. Generally, the satellite phone will not be active for calling into from a landline, unless prior scheduling is made with the field employee.

Due to the remote and isolated nature of the Alcan in winter, when driving to Anchorage or Fairbanks duty travelers are advised to take a satellite phone for emergency communications purposes.

### Cell Phones

Cell phones are not a viable option anywhere in the backcountry of the Chilkoot or White Pass Units of the park nor do they work in Canada.

### **Backcountry Check-Ins**

In-season each morning and evening at least one employee from each backcountry party/station will monitor the park-wide radio report initiated by the Trail Center. If for some reason these reports are missed, the employee/party should check-in with the Trail Center via NPS radio or satellite phone. At the time of the check-in the employee/party will advise the Trail Center of any deviation from the information on the Trail Schedule. If at the time of the evening call-in, the employee/party has not yet returned to the backcountry overnight station/camp, that employee/party must make an effort to contact police dispatch to call "out of service" by radio or satellite phone upon arrival at the station/camp. The Trail Center staff should notify police dispatch of any employees who fail to report or have not yet reached their camp/station before closing. See "failure to report section."

### Welfare Checks and High Risk Travel

Whenever an employee, volunteer, or party travels through hazardous terrain (i.e. avalanche slopes, ice bridges, river crossings, near a wildland fire, etc.), the party will self initiate welfare checks with the Trail Center during business hours and with the Skagway Police Department Dispatch after hours. These checks should continue at 15 minute intervals, until the party acknowledges they are clear of the hazard.

## Failure to Check-In

If a party fails to check-in during the AM or PM call-ins (or late Check-In with Dispatch) or during welfare checks, Trail Center staff (or Dispatch) will immediately contact the on-duty Protection Ranger or Chief Ranger. Efforts will be made to immediately contact other backcountry staff in the project area to obtain information or locate the employee's point last seen. After these efforts are exhausted the employees' supervisor(s) and Chief Ranger/designee will evaluate the circumstances to decide on the proper course of action. In the event of a failure to check-in, Trail Center (or Dispatch) staff will attempt to call the missing party every 20 minutes until the party is located or the Chief Ranger/designee directs otherwise. Messages with instruction should be broadcasted "in the blind".

In order to avoid unnecessary search and rescue operations, all parties working in the backcountry need to possess a working knowledge of Klondike Gold Rush NHP's radio communications system. While transmitting on the NPS radio repeater on Chilkoot Pass (channel 2) is the preferred method of checking in, alternatives exist such as a radio relay with another party that is able to "hit" the repeater or has access to a satellite phone. When in doubt and unable to "hit" the repeater, try broadcasting on channel 1. Often a nearby trail staff or Parks Canada Summit Warden will be able to pick up the transmission. When approaching a known "dead spot" that is likely to prevent a radio response during a scheduled "check-in", employees should consider calling in early to report their location and itinerary. It is the responsibility of every employee to make every reasonable effort to monitor the radio while on duty and communicate status during scheduled and unscheduled checks.

If a work pair or team becomes separated and cannot report status as a group, the group member(s) without radio communications should return to the established work site base, or within a reasonable amount of time, return to the nearest ranger/warden station to report status via radio.

In determining the necessity for a hasty search supervisors should consider the following factors:

- Failure to check-in during welfare checks for high risk travel carries a higher probability of incident and therefore a hasty search should be initiated within the first hour following the initial failure to check-in.
- If squelch feedback is heard during check-in but nothing legible, it can be assumed that the failure is due to low battery. Give sufficient time for employee to reach base station to transmit on base radio or acquire another battery before initiating a hasty search. Some basic welfare questions can be asked of the employee over the radio in an effort to solicit "keying of the mic" responses. (eg. "Key the mic twice if you are okay...")
- Immediately contact the Chilkoot Pass Warden to begin interviewing hikers about any observations regarding the ranger or possible hazards noted enroute.
- Proximity to darkness may increase the urgency of a hasty search, if dependent upon helicopter use.
- Known terrain features where an employee is working may help. Known dead spots may reduce the urgency for a hasty search. Hazardous terrain or weather conditions may increase it.
- Prior behavioral patterns by the employee may suggest level of urgency. (eg: An employee who has been late to check-in or failed to monitor the radio consistently in the past may suggest a lower sense of urgency.)

## **Off-Trail Travel**

Planned deviations from the routine itinerary (such as Peterson Pass or crossing the Notch) need to be communicated at check-ins. Unplanned deviations should be communicated to the Trail Center or Dispatch as soon as practicable. All off-trail travel of a significant nature, such as trips to White Pass or Nourse Creek Drainage will require a written or electronic trip itinerary. The goal of the itinerary is to let others know where you plan on traveling. Due to the rugged terrain associated with off-trail travel, it is strongly advised that travel be conducted in parties of two or more. The supervisor may authorize solo travel on a case-by-case basis.

## **Solo Travel**

It is recommended that employees travel in the backcountry in parties of two or more when working overnight under the following circumstances:

- Manual labor with sharp power or hand tools
- Resource patrols or field studies in project areas outside of the primary Chilkoot Trail corridor or White Pass railroad right of way
- Extended (more than one hour travel distance) deviations into areas with no prior personal experience
- Areas and time periods of high avalanche hazard
- Season is outside of usual ranger patrol season
- High water event
- Work off-trail in areas of frequent bear use during the salmon spawning season
- Travel after civil twilight.
- Snow surveys will always be conducted with two or more persons.

There will be circumstances when emergency response duties or the nature of one's position, such as Trail Rangers, where solo travel during these conditions may be necessary. The supervisor will ensure that employees have received the proper training and have the essential safety equipment and the knowledge to make good decisions regarding travel in rough terrain. During such solo travel, the employee will initiate regular welfare checks with the Trail Center/Dispatch until the hazard is reduced. See "Failure to Check-In" section for more information.

## **Required Equipment**

Equipment can be a double-edged sword in the backcountry. Too little equipment creates a hazard of being ill-prepared to face the tasks at hand. Too much equipment slows travelers down and exposes them to hazards for a longer period. Employees must learn to strike the right balance. It is the supervisor's responsibility to ensure the employee is well equipped to perform duties in the backcountry in a safe and responsible manner. Employees will adhere to backcountry safety policy.

This is a list of the minimal equipment required to enter the backcountry as an NPS employee:

- Bear Spray
- Radio and 1 extra battery (more if not using a station with charger as a base)
- Food and Water
- Rain and cold weather gear (include one dry pair of socks and top layer).

- First Aid Kit (one per party)
- Navigation Equipment (map, compass, GPS, etc.)
- Appropriate foot wear for job, terrain, and weather

When traveling through avalanche terrain employees must possess and know how to use:

- Transceiver
- Probe
- Shovel
- And a trustworthy buddy
- During the early summer, conditions may warrant an ice axe for self-arrest on the “Golden Stairs”

In addition to the above listed items, Trail Rangers and employees charged with routine visitor emergency response will also carry the following patrol items in the backcountry:

- NPS issued multiple person/incident trauma packs with stethoscope and B/P cuff.
- GPS unit
- Two leaf-and-lawn sized plastic garbage bags
- Energy/sugar drink packet for rendering aid

**Note:** Shotguns are cached at each backcountry station and the Scales SAR box and are accessible to employees, who have successfully completed the NPS approved wildlife course of fire and have been authorized by their supervisor to use a shotgun in the field for bear protection or hazing purposes. Additional EMS, SAR and cold weather survival equipment is stocked and maintained in the Scales SAR box.

## Safety Dialogue

Evaluating options and measuring risk before starting a new project can greatly reduce safety incidents in the backcountry. Supervisors and project leaders will conduct safety briefings prior to the start of new projects. Raising safety concerns prior to engaging in these activities will help protect all employees. Employees should be encouraged to make their supervisor or project leader aware of any areas in which they lack training or skills. The supervisor is responsible for ensuring that the employee is properly trained and prepared before engaging in new or unfamiliar operations. Employees who fail to adhere to the established policies may be considered working outside of the scope of duty.

## Training

Supervisors and employees should always evaluate the scope of work, final objectives, and seasonal weather conditions when scheduling and preparing for backcountry work projects. Some projects may need to be delayed until avalanche hazards are lowered or eliminated, while shifting focus to the lower end of the Chilkoot during the early season, or some projects may be best suited for early season when the rivers flow at lower speeds. Whatever the hazard or job environment, supervisors will provide the necessary training to ensure the employee can safely perform the task at hand. The following Job Hazard Analysis will identify the minimum training standards that will be made available for employees for potentially high risk activities.



## Job Hazard Analysis

TASK	HAZARD	RECOMMENDED ACTIONS
Backcountry Travel	<b>Mountain Weather</b> <ul style="list-style-type: none"> <li>hypothermia conditions</li> <li>high winds and storms</li> <li>Falling or tripping due to wet areas, holes, poor footing, snow and ice, uneven terrain, loose/rolling rocks and heavy pack.</li> </ul>	<ol style="list-style-type: none"> <li>Monitor weather forecasts and stay alert for changing weather conditions</li> <li>Schedule work assignments appropriate for the time of season.</li> <li>Remain hydrated and well fed</li> <li>Avoid traveling in unfamiliar terrain with little visibility</li> <li>Travel with a partner when possible</li> <li>Understand and practice situational awareness &amp; risk management at all times.</li> <li>Plan ahead &amp; identify necessary PPE for your trip (i.e. Wear proper footwear; ensure protection from environmental conditions such as precipitation, wind, cold, heat; anticipate a full day and even a night out; consider you may have to care for someone else; anticipate whether you might need a helmet for the trip, etc..) Carry synthetic clothing capable of shielding you from the elements (Gore-Tex, polypro, fleece, etc.)</li> <li>Guard against overloading yourself with unnecessary equipment. Recognize that in a mountain environment speed &amp; the ability to travel quickly &amp; efficiently, at times, may equate to safety. Unnecessarily heavy packs may be hazardous to safe travel in rugged terrain. STRIKE THAT BALANCE between adequate preparedness and excess. Work with supervisors &amp; other experienced personnel to develop your own needs and the ability to adequately assess and prepare.</li> </ol>
	<b>River Crossings</b> <ul style="list-style-type: none"> <li>loss of footing/foot traps</li> <li>strainers and sweepers</li> <li>drowning</li> <li>collapse of snow/ice bridges</li> </ul>	<ol style="list-style-type: none"> <li>Scout for a safe crossing</li> <li>Wear proper footwear</li> <li>Prepare to jettison pack during crossing</li> <li>Safe water crossings training (from Swift-Water Rescue Techniques curriculum) will be made available for employees required to cross swift-water in the performance of their duties.</li> <li>Bust out weaker edges of snow bridges before crossing; test stability of bridge before crossing.</li> </ol>
	<b>Boat Patrols/Crossings</b> <ul style="list-style-type: none"> <li>strainers and sweepers</li> <li>drowning</li> <li>capsizing</li> <li>head/spine injuries</li> </ul>	<ol style="list-style-type: none"> <li>Boat handling training will be provided to employees required to utilize park water craft in the performance of their duties.</li> <li>Wear proper PPE (PFD required, helmet and dry suit for rescue operations)</li> </ol>
	<b>Avalanche Terrain</b> <ul style="list-style-type: none"> <li>burial by avalanche</li> <li>loss of footing and fall/slide with potential for severe trauma injuries</li> </ul>	<ol style="list-style-type: none"> <li>Avalanche awareness, safety, and self-rescue training will be made available to employees required to travel or work in avalanche terrain.</li> <li>Employees will each carry a minimum of transceiver, probe, and shovel when a moderate potential for avalanche exists.</li> <li>Travel one at a time through avalanche terrain</li> <li>Avoid traveling solo during high avalanche hazard.</li> </ol>
	<b>Environmental hazards (insects, plants, etc.)</b> <ul style="list-style-type: none"> <li>poisoning and/or illness</li> <li>sun burn or snow blindness</li> </ul>	<ol style="list-style-type: none"> <li>Learn to identify poisonous plants and how to treat symptoms if infected (ie. Baneberry, Devil's club, cow parsnip, and "fly amanita" mushrooms).</li> <li>Wear clothing that protects against biting insects, poisonous plants, sharp rocks, harmful solar rays and snow and ice.</li> <li>Carry insect repellent, sunglasses and sun screen.</li> </ol>
	<b>Solo Travel</b> <ul style="list-style-type: none"> <li>wide range of incidents</li> </ul>	<ol style="list-style-type: none"> <li>Evaluate risks in a more conservative manner</li> <li>Contact Dispatch whenever hazardous terrain is encountered for welfare checks</li> </ol>

	could result immobilizing an employee with no assistance or comms.	<ol style="list-style-type: none"> <li>3. Report detailed trip itinerary with supervisor/dispatch during off-season or high risk travel times.</li> <li>4. Adhere closely to communications policy.</li> </ol>
	Off-Trail Travel <ul style="list-style-type: none"> <li>▪ Lack of familiarization with area and terrain could lead employee to becoming lost or injured.</li> <li>▪ Ill-prepared or ill-equipped employees may result in athletic and environmental injuries or worse.</li> </ul>	<ol style="list-style-type: none"> <li>1. File an Itinerary at Trail Center with travel route spelled out</li> <li>2. Adhere closely to communications policy.</li> <li>3. Travel with a buddy whenever possible</li> <li>4. Avoid traveling in unfamiliar terrain with low visibility</li> <li>5. Supervisors will provide employees with a proper orientation and orienteering equipment for successful off-trail navigation in the backcountry.</li> <li>6. Employees should research a sound working knowledge of backcountry demands and equipment needed.</li> <li>7. Employees must maintain an adequate exercise and fitness plan for enduring the strenuous nature of the park's backcountry. Stay in shape. Know &amp; monitor your personal fitness level &amp; that of others in your group. Adjust plans accordingly. Carry water or a filter.</li> <li>8. Have an approved First Aid Kit on hand.</li> <li>9. If possible, take a coworker when traveling in areas of high risk or when conducting high risk activities.</li> <li>10. Communications are a life link. Carry a radio &amp; spare battery at all times. Ensure that equipment is working properly; batteries are fully charged, etc. Know and consult radio coverage maps. Be prepared to take a satellite phone if determined necessary.</li> <li>11. File a written backcountry route plan with Dispatch and supervisor. If you deviate from this plan, notify dispatch. At key points during your trip (i.e. destination reached, decision-making points such as summits, junctions, saddles, etc.) re-contact dispatch &amp; provide a status. Request status checks when traveling through hazardous areas (i.e. when crossing a known or suspected avalanche path.)</li> </ol>
	Hiking the Railroad Tracks <ul style="list-style-type: none"> <li>▪ Impact with train or service machinery</li> </ul>	<ol style="list-style-type: none"> <li>1. Always hike alert to approaching trains from forward or behind. Look back frequently, particular under windy conditions.</li> <li>2. Always yield right-of-way to machinery and adhere to local railroad direction and policies.</li> </ol>
Backcountry Sanitation	Dish Cleaning <ul style="list-style-type: none"> <li>▪ Contraction of bacterial disease and viruses</li> </ul>	<ol style="list-style-type: none"> <li>1. Wash hands after using or cleaning toilet facilities.</li> <li>2. Thoroughly wash and sanitize cookware after use.</li> <li>3. Filter, boil or chemically treat all drinking and rinse water.</li> </ol>
	Refuse/Waste Disposal <ul style="list-style-type: none"> <li>▪ Contraction of bacterial disease and viruses</li> <li>▪ potential for burns and singeing</li> </ul>	<ol style="list-style-type: none"> <li>1. Wear gloves and use proper tools (ie. stirring rake) when maintaining toilet facilities.</li> <li>2. Employees will be trained on proper maintenance techniques for the moldering privies.</li> <li>3. Two or more employees will be used to reposition the moldering privy toilet housing.</li> <li>4. Employees involved in toilet maintenance activities will be provided opportunity to initiate Hepatitis B and Tetanus Vaccinations.</li> <li>5. Glass, tin, and plastic recycling will be sorted and cleaned for storing for end of season fly-out.</li> <li>6. Other remaining burnable garbage and food waste will be incinerated on a regular scheduled basis with kerosene fuel and a small amount of firewood in the provided incinerator barrel. <u>Do not use gas</u>. Remaining ash and deposits will be removed from the barrel and flown out of the backcountry with non-burnables.</li> </ol>
Trail Maintenance	Chain Saw and Power Tool	<ol style="list-style-type: none"> <li>1. Use minimum tool necessary</li> </ol>

	Usage <ul style="list-style-type: none"> <li>▪ Potential for significant cuts and wounds.</li> <li>▪ Tree or parts could fall on employee or hiker</li> </ul>	<ol style="list-style-type: none"> <li>2. Avoid using power tools when alone</li> <li>3. Wear proper PPE (eye and ear protection, chaps, helmet for felling, radio and first aid kit)</li> <li>4. Training will be made available in the safe use of equipment prior to and during operation</li> <li>5. Maintain certification (S-212) for felling</li> <li>6. Employees will only fell trees when trained and a safety lookout is present.</li> </ol>
Aviation	Helicopter Use <ul style="list-style-type: none"> <li>▪ Helicopter crash with flashover and fire spread</li> <li>▪ Injury or damage from main or tail rotor strike</li> <li>▪ Jettisoned external load</li> <li>▪ Entanglement in external load or line</li> <li>▪ Static shock from incoming loads</li> <li>▪ Flying Debris</li> </ul>	<ol style="list-style-type: none"> <li>1. Adhere to Agency/Park Policies (IHOG)</li> <li>2. Wear proper PPE (Nomex, leather boots, helmet/ eye and ear protection)</li> <li>3. Aviation safety will be made available to all employees engaged in special use aviation projects.</li> <li>4. Crewmember training will be made available to all employees involved in building loads or working with internal/external loading of the helicopter.</li> <li>5. Conduct Preflight safety briefings and post-operation debriefings.</li> <li>6. Evaluate weather and complete risk analysis.</li> </ol>
Ranger Operations	Search and Rescue Operations <ul style="list-style-type: none"> <li>▪ Exposure to environmental elements</li> <li>▪ Interaction with wildlife</li> <li>▪ Unfamiliar terrain</li> </ul>	<ol style="list-style-type: none"> <li>1. Wear proper PPE for operation</li> <li>2. Do not work above skill level</li> <li>3. Attend briefings and debriefings when possible</li> <li>4. Carry adequate personal survival items as conditions warrant.</li> </ol>
	Emergency Medical Services <ul style="list-style-type: none"> <li>▪ Exposure to biological contaminants</li> <li>▪ Back/lifting injuries</li> </ul>	<ol style="list-style-type: none"> <li>1. Wear proper PPE (universal precautions)</li> <li>2. Maintain EMS and CPR certifications and skills</li> <li>3. Do not work above certification level</li> <li>4. Practice proper lifting techniques.</li> <li>5. All EMT's will be offered Hepatitis B vaccinations</li> </ol>
	Public Contacts/Law Enforcement <ul style="list-style-type: none"> <li>▪ serious bodily harm or death by combatant subjects</li> <li>▪ Contact with biological and chemical hazards</li> </ul>	<ol style="list-style-type: none"> <li>1. Non-LE employees should not engage individuals that have weapons, are noticeably under the influence of drugs or alcohol, or demonstrate disorderly conduct.</li> <li>2. Employees will report all suspicious or unusual behavior to an LE ranger as soon as practicable.</li> <li>3. Be a good witness: even for minor violations, if you do not feel comfortable making a contact, don't; observe, retreat and report to a commissioned employee as much detail as possible. If you can in a non-confrontation manner obtain a permit number, call it in to the Trail Center or Dispatch.</li> <li>4. LE Rangers will adhere to RM-9 policy for the wearing of defensive equipment in the backcountry.</li> <li>5. LE Rangers will evaluate the hazards/practicality of apprehension of subjects for serious felony or violent infractions vs. cite and release or report and intercept.</li> <li>6. LE rangers will receive Annual In-Service Training and fitness testing.</li> </ol>
	Wildland Fire <ul style="list-style-type: none"> <li>▪ Physical and cardiac stress injuries</li> </ul>	<ol style="list-style-type: none"> <li>1. Wear proper PPE</li> <li>2. Do not work above skill level</li> <li>3. If alone and a small fire cannot be contained or extinguished within the first minutes, withdraw and call for assistance.</li> </ol>

	<ul style="list-style-type: none"> <li>▪ A range from minor to severe burns</li> <li>▪ Smoke inhalation/respiratory injuries</li> <li>▪ Falling/rolling rocks and trees</li> <li>▪ Injury with tool.</li> </ul>	<ol style="list-style-type: none"> <li>4. Employees required to fight-fire in the performance of their duties will receive training, fitness testing and "Red Card" certification</li> <li>5. Fire extinguishers will be maintained at public use shelters, backcountry cabins, and on location during helicopter projects, when feasible.</li> <li>6. Open fires are prohibited in the backcountry. Wood stoves are provided in shelters only.</li> </ol>
Wildlife/Bear Management	<p>Firearm Use and Aversive Conditioning</p> <ul style="list-style-type: none"> <li>▪ Injury to self or other by unintentional discharge of firearm or negligent use.</li> <li>▪ Bear attack/mauling response</li> <li>▪ Subsequent fire ignition by pyrotechnics</li> </ul>	<ol style="list-style-type: none"> <li>1. Adhere to KLGO bear management policy</li> <li>2. Follow all firearms safety rules; employees may not possess personal firearms while on duty unless authorized by the superintendent.</li> <li>3. Employees charged with conducting aversive conditioning will receive formal training</li> <li>3. Learn to avoid confrontations</li> <li>4. Make noise and travel in groups whenever possible</li> <li>5. Employees will be provided bear spray and trained in its use.</li> <li>6. Always store food properly, whether in camp or in a cabin.</li> <li>7. Aversive conditioning will be conducted in teams of two, if at all possible. A lethal alternative will be present during aversive conditioning.</li> </ol>

Backcountry Work Log    Date\_\_\_\_\_

Employee Names:

Employee Supervisor:




How Call-Ins will occur?   Radio   \_\_\_\_\_   Sat Phone #   \_\_\_\_\_

	Work Site	End of Shift Location	Check In
Day 1			
Day 2			
Day 3			
Day 4			
Day 5			
Day 6			
Day 7			
Day 8			

Special Instructions:

## Rough Approximation of Radio Signal Propagation for KLGO Area

### Radio Channel Usage

-  Channel 2  
Chilkoot Repeater
-  Channel 3 AB  
Mountain
-  Known Radio  
"Dead Spots"

